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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/039,438   | 03/16/1998  | WOO-SUP SHIN         | 041992-5037         | 9576             |
| 30827  | 7590        | 05/17/2004           | EXAMINER            |                  |
| MCKENNA LONG & ALDRIDGE LLP<br>1900 K STREET, NW<br>WASHINGTON, DC 20006 |             |                      | ZERVIGON, RUDY      |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1763                |                  |

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/039,438

Applicant(s)

SHIN ET AL.

Examiner

Rudy Zervigon

Art Unit

1763

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 30 April 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: \_\_\_\_\_.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1-26.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☒ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4/23/2004.
10. ☐ Other: \_\_\_\_\_

Continuation of 2. NOTE: The presented claims are not amended to remove the rejections made in the final office action. All the rejections made in the final office action are sustained after review and further consideration. Applicant states none of the cited references teach "a second tank receiving the residual etchant from the etch bath and separating the diluted etchant from the residue material; a connecting passage directly connecting the first and second tanks and directly transferring the separated diluted etchant from the second tank to the first tank; an outlet pipe attached to the second tank, the outlet pipe discharging the residue material.. ." However, it has been well established that indeed the primary reference to Nelson, Warren A (US 4147581 A) precisely teaches a second tank (4; Figure 1) receiving the residual etchant (first etchant – "etching solution"; column 4, line 43; column 2, lines 45-69) including HF (abstract) and the resulting liquid (residual etchant of stream 3, Figure 1; column 4, lines 58-60) from the etch bath (in first tank 2) and separating the diluted etchant from the residue material – "The washed etched solids are removed from unit 4 via stream 6 and passed to further processing, not shown, or product utilization....The spent rinse liquid proceeds from valve 9 via stream 10 into ion exchange means 11 which is exemplificatively a cation exchange resin bed of the types mentioned supra, and in which the metal cations are selectively retained on the ion exchange substance which release cations previously derived from replenisher solution, so that the ion exchange means 11 steadily becomes more laden with metal cations." (column 4, lines 49-65). And further: a connecting passage (31) directly connecting the first (2) and second (4) tanks and directly transferring the separated diluted etchant from the second tank to the first tank; an outlet pipe (6) attached to the second tank (4), the outlet pipe discharging the residue material.



**JEFFRIE R. LUND**  
**PRIMARY EXAMINER**